

Weijun Zhang

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/488035/publications.pdf>

Version: 2024-02-01

102
papers

3,573
citations

147726

31
h-index

149623

56
g-index

103
all docs

103
docs citations

103
times ranked

2299
citing authors

#	ARTICLE	IF	CITATIONS
1	Correlation of physicochemical properties and sludge dewaterability under chemical conditioning using inorganic coagulants. <i>Bioresource Technology</i> , 2013, 144, 337-343.	4.8	247
2	Influence of wastewater sludge treatment using combined peroxyacetic acid oxidation and inorganic coagulants re-flocculation on characteristics of extracellular polymeric substances (EPS). <i>Water Research</i> , 2016, 88, 728-739.	5.3	225
3	Enhanced technology based for sewage sludge deep dewatering: A critical review. <i>Water Research</i> , 2021, 189, 116650.	5.3	217
4	Enhancement of waste activated sludge dewaterability using calcium peroxide pre-oxidation and chemical re-flocculation. <i>Water Research</i> , 2016, 103, 170-181.	5.3	179
5	Enhancement of activated sludge dewatering performance by combined composite enzymatic lysis and chemical re-flocculation with inorganic coagulants: Kinetics of enzymatic reaction and re-flocculation morphology. <i>Water Research</i> , 2015, 83, 367-376.	5.3	163
6	Insights into the respective role of acidification and oxidation for enhancing anaerobic digested sludge dewatering performance with Fenton process. <i>Bioresource Technology</i> , 2015, 181, 247-253.	4.8	147
7	Wastewater sludge dewaterability enhancement using hydroxyl aluminum conditioning: Role of aluminum speciation. <i>Water Research</i> , 2016, 105, 615-624.	5.3	127
8	Highly effective enhancement of waste activated sludge dewaterability by altering proteins properties using methanol solution coupled with inorganic coagulants. <i>Water Research</i> , 2018, 138, 181-191.	5.3	123
9	Variations in distribution and composition of extracellular polymeric substances (EPS) of biological sludge under potassium ferrate conditioning: Effects of pH and ferrate dosage. <i>Biochemical Engineering Journal</i> , 2016, 106, 37-47.	1.8	88
10	Improvement of wastewater sludge dewatering performance using titanium salt coagulants (TSCs) in combination with magnetic nano-particles: Significance of titanium speciation. <i>Water Research</i> , 2017, 110, 102-111.	5.3	86
11	Understanding the impact of chemical conditioning with inorganic polymer flocculants on soluble extracellular polymeric substances in relation to the sludge dewaterability. <i>Separation and Purification Technology</i> , 2014, 132, 430-437.	3.9	79
12	Compartmentalization of extracellular polymeric substances (EPS) solubilization and cake microstructure in relation to wastewater sludge dewatering behavior assisted by horizontal electric field: Effect of operating conditions. <i>Water Research</i> , 2018, 130, 363-375.	5.3	77
13	Understanding the evolution of stratified extracellular polymeric substances in full-scale activated sludges in relation to dewaterability. <i>RSC Advances</i> , 2015, 5, 1282-1294.	1.7	72
14	Enhancement of anaerobic digestion sludge dewatering performance using in-situ crystallization in combination with cationic organic polymers flocculation. <i>Water Research</i> , 2018, 146, 19-29.	5.3	66
15	Changes in molecular structure of extracellular polymeric substances (EPS) with temperature in relation to sludge macro-physical properties. <i>Water Research</i> , 2021, 201, 117316.	5.3	62
16	Dynamic variation in physicochemical properties of activated sludge floc from different WWTPs and its influence on sludge dewaterability and settleability. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2015, 467, 124-134.	2.3	58
17	Performance and mechanisms of wastewater sludge conditioning with Åslag-based hydrotalcite-like minerals (Ca/Mg/Al-LDH). <i>Water Research</i> , 2020, 169, 115265.	5.3	57
18	Understanding synergistic mechanisms of ferrous iron activated sulfite oxidation and organic polymer flocculation for enhancing wastewater sludge dewaterability. <i>Water Research</i> , 2021, 189, 116652.	5.3	52

#	ARTICLE	IF	CITATIONS
19	Flocculation-dewatering behavior of waste activated sludge particles under chemical conditioning with inorganic polymer flocculant: Effects of typical sludge properties. <i>Chemosphere</i> , 2019, 218, 930-940.	4.2	51
20	Synthesis of highly effective absorbents with waste quenching blast furnace slag to remove Methyl Orange from aqueous solution. <i>Journal of Environmental Sciences</i> , 2017, 53, 68-77.	3.2	46
21	Mechanistic insights into the effects of biopolymer conversion on macroscopic physical properties of waste activated sludge during hydrothermal treatment: Importance of the Maillard reaction. <i>Science of the Total Environment</i> , 2021, 769, 144798.	3.9	44
22	Variations of floc morphology and extracellular organic matters (EOM) in relation to floc filterability under algae flocculation harvesting using polymeric titanium coagulants (PTCs). <i>Bioresource Technology</i> , 2018, 256, 350-357.	4.8	43
23	Catalytic pyrolysis coupling to enhanced dewatering of waste activated sludge using KMnO ₄ Fe(II) conditioning for preparing multi-functional material to treat groundwater containing combined pollutants. <i>Water Research</i> , 2019, 158, 424-437.	5.3	42
24	Carbon-based materials reinforced waste activated sludge electro-dewatering for synchronous fuel treatment. <i>Water Research</i> , 2019, 149, 533-542.	5.3	42
25	Effect of extracellular polymer substances on the tetracycline removal during coagulation process. <i>Bioresource Technology</i> , 2020, 309, 123316.	4.8	39
26	Immobilization of horseradish peroxidase enzymes on hydrous-titanium and application for phenol removal. <i>RSC Advances</i> , 2016, 6, 38117-38123.	1.7	38
27	Characterization of changes in floc morphology, extracellular polymeric substances and heavy metals speciation of anaerobically digested biosolid under treatment with a novel chelated-Fe ²⁺ catalyzed Fenton process. <i>Bioresource Technology</i> , 2017, 243, 641-651.	4.8	38
28	Advanced anaerobic digested sludge dewaterability enhancement using sludge based activated carbon (SBAC) in combination with organic polymers. <i>Chemical Engineering Journal</i> , 2018, 350, 660-672.	6.6	38
29	Impact of molecular structure and charge property of chitosan based polymers on flocculation conditioning of advanced anaerobically digested sludge for dewaterability improvement. <i>Science of the Total Environment</i> , 2019, 670, 98-109.	3.9	36
30	A novel waste activated sludge multistage utilization strategy for preparing carbon-based Fenton-like catalysts: Catalytic performance assessment and micro-interfacial mechanisms. <i>Water Research</i> , 2019, 150, 473-487.	5.3	36
31	One-pot synthesis of g-C ₃ N ₄ -doped amine-rich porous organic polymer for chlorophenol removal. <i>Environmental Science: Nano</i> , 2018, 5, 169-182.	2.2	34
32	Preparation of magnetic polyimide@ Mg-Fe layered double hydroxides core-shell composite for effective removal of various organic contaminants from aqueous solution. <i>Chemosphere</i> , 2019, 219, 66-75.	4.2	33
33	Molecular composition and biotoxicity effects of dissolved organic matters in sludge-based carbon: Effects of pyrolysis temperature. <i>Journal of Hazardous Materials</i> , 2022, 424, 127346.	6.5	29
34	Environmental impacts and optimizing strategies of municipal sludge treatment and disposal routes in China based on life cycle analysis. <i>Environment International</i> , 2022, 166, 107378.	4.8	29
35	Central treatment of different emulsion wastewaters by an integrated process of physicochemically enhanced ultrafiltration and anaerobic-aerobic biofilm reactor. <i>Bioresource Technology</i> , 2014, 159, 150-156.	4.8	27
36	Effects of chemical modification on physicochemical properties and adsorption behavior of sludge-based activated carbon. <i>Journal of Environmental Sciences</i> , 2021, 100, 340-352.	3.2	27

#	ARTICLE	IF	CITATIONS
37	Molecular mechanisms of interaction between enzymes and Maillard reaction products formed from thermal hydrolysis pretreatment of waste activated sludge. <i>Water Research</i> , 2021, 206, 117777.	5.3	26
38	Flocculationâ€“Dewatering Behavior of Microalgae at Different Growth Stages under Inorganic Polymeric Flocculant Treatment: The Relationships between Algal Organic Matter and Floc Dewaterability. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 11087-11096.	3.2	25
39	Effects of alkalinity on interaction between EPS and hydroxy-aluminum with different speciation in wastewater sludge conditioning with aluminum based inorganic polymer flocculant. <i>Journal of Environmental Sciences</i> , 2021, 100, 257-268.	3.2	25
40	Effects of inorganic seed aerosols on the growth and chemical composition of secondary organic aerosol formed from OH-initiated oxidation of toluene. <i>Journal of Atmospheric Chemistry</i> , 2013, 70, 151-164.	1.4	23
41	Characterization of brown carbon constituents of benzene secondary organic aerosol aged with ammonia. <i>Journal of Atmospheric Chemistry</i> , 2018, 75, 205-218.	1.4	22
42	Comprehensive assessment of flocculation conditioning of dredged sediment using organic polymers: Dredged sediment dewaterability and release of pollutants. <i>Science of the Total Environment</i> , 2020, 739, 139884.	3.9	22
43	The influences of ammonia on aerosol formation in the ozonolysis of styrene: roles of Criegee intermediate reactions. <i>Royal Society Open Science</i> , 2018, 5, 172171.	1.1	21
44	Relationship between the physicochemical properties of sludge-based carbons and the adsorption capacity of dissolved organic matter in advanced wastewater treatment: Effects of chemical conditioning. <i>Chemosphere</i> , 2020, 243, 125333.	4.2	21
45	Systematic assessment of dredged sludge dewaterability improvement with different organic polymers based on analytic hierarchy process. <i>Journal of Environmental Sciences</i> , 2021, 103, 311-321.	3.2	21
46	Enhancement of Fenton oxidation for removing organic matter from hypersaline solution by accelerating ferric system with hydroxylamine hydrochloride and benzoquinone. <i>Journal of Environmental Sciences</i> , 2016, 41, 16-23.	3.2	20
47	NH ₂ Fe ₃ O ₄ @SiO ₂ supported peroxidase catalyzed H ₂ O ₂ for degradation of endocrine disrupter from aqueous solution: Roles of active radicals and NOMs. <i>Chemosphere</i> , 2017, 186, 733-742.	4.2	20
48	Removal of Typical Organic Contaminants with a Recyclable Calcined Chitosan-Supported Layered Double Hydroxide Adsorbent: Kinetics and Equilibrium Isotherms. <i>Journal of Chemical & Engineering Data</i> , 2018, 63, 159-168.	1.0	20
49	Correlation and mechanism of extracellular polymeric substances (EPS) on the effect of sewage sludge electro-dewatering. <i>Science of the Total Environment</i> , 2021, 801, 149753.	3.9	20
50	Fe/Mn loaded sludge-based carbon materials catalyzed oxidation for antibiotic degradation: Persulfate vs H ₂ O ₂ as oxidant. <i>Separation and Purification Technology</i> , 2021, 263, 118409.	3.9	19
51	A vacuum ultraviolet photoionization time-of-flight mass spectrometer with high sensitivity for study of gas-phase radical reaction in a flow tube. <i>International Journal of Chemical Kinetics</i> , 2019, 51, 178-188.	1.0	18
52	Micro-interfacial mechanisms on sludge dewaterability enhancement using cerium chloride for preparation of carbon-based functional material. <i>Journal of Hazardous Materials</i> , 2020, 386, 121930.	6.5	18
53	Preparation of composite sludge carbon-based materials by LDHs conditioning and carbonization and its application in the simultaneous removal of dissolved organic matter and phosphate in sewage. <i>Chemosphere</i> , 2021, 270, 129485.	4.2	18
54	Light Absorption Properties of Organic Aerosol from Wood Pyrolysis: Measurement Method Comparison and Radiative Implications. <i>Environmental Science & Technology</i> , 2020, 54, 7156-7164.	4.6	17

#	ARTICLE	IF	CITATIONS
55	Vacuum ultraviolet photodynamics of the methyl peroxy radical studied by double imaging photoelectron photoion coincidences. <i>Journal of Chemical Physics</i> , 2020, 152, 104301.	1.2	17
56	Superconducting-Magnet-Based Faraday Rotation Spectrometer for Real Time in Situ Measurement of OH Radicals at 10^6 Molecule/cm ³ Level in an Atmospheric Simulation Chamber. <i>Analytical Chemistry</i> , 2018, 90, 3958-3964.	3.2	16
57	Characterization of changes in extracellular polymeric substances and heavy metal speciation of waste activated sludge during typical oxidation solubilization processes. <i>Journal of Environmental Sciences</i> , 2019, 80, 146-158.	3.2	16
58	Insight into the combined colloidal-humic acid fouling on the hybrid coagulation microfiltration membrane process: The importance of aluminum. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2014, 461, 98-104.	2.3	15
59	Study of sludge conditioning using organic acids chelated ferrous ion catalyzed NaClO oxidation: Evolution of extracellular polymeric substances and floc structure. <i>Journal of Environmental Management</i> , 2021, 280, 111757.	3.8	14
60	Removal of arsenic in groundwater using Slag based calcined layered double hydroxides (CLDHs) with dual functions of adsorption and photo-catalysis. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2020, 604, 125300.	2.3	13
61	Light absorption properties and molecular compositions of water-soluble and methanol-soluble organic carbon emitted from wood pyrolysis and combustion. <i>Science of the Total Environment</i> , 2022, 809, 151136.	3.9	13
62	Calcined Chitosan-Supported Layered Double Hydroxides: An Efficient and Recyclable Adsorbent for the Removal of Fluoride from an Aqueous Solution. <i>Materials</i> , 2017, 10, 1320.	1.3	12
63	Preparation of the novel g-C ₃ N ₄ and porous polyimide supported hydrotalcite-like compounds materials for water organic contaminants removal. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2020, 607, 125517.	2.3	12
64	Time-Resolved Laser-Flash Photolysis Faraday Rotation Spectrometer: A New Tool for Total OH Reactivity Measurement and Free Radical Kinetics Research. <i>Analytical Chemistry</i> , 2020, 92, 4334-4339.	3.2	12
65	Biopolymer transformation and antibiotics degradation of wastewater sludge using thermally activated persulfate oxidation for dewaterability enhancement. <i>Separation and Purification Technology</i> , 2021, 274, 119021.	3.9	12
66	The spatial variations of water quality and effects of water landscape in Baiyangdian Lake, North China. <i>Environmental Science and Pollution Research</i> , 2022, 29, 16716-16726.	2.7	12
67	Bacterial community structure in the surface sediments of different habitats of Baiyangdian Lake, Northern China: effects of nutrient conditions. <i>Journal of Soils and Sediments</i> , 2021, 21, 1866-1874.	1.5	11
68	Removal of Tetracycline, 2,4-Dichlorophenol, and Glyphosate from Aqueous Solution by Novel Humic Acid-Modified g-C ₃ N ₄ -Supported Hydrotalcite-like Compounds: Kinetics, Isotherm, Thermodynamics, and Reusability Exploration. <i>Journal of Chemical & Engineering Data</i> , 2020, 65, 4914-4923.	1.0	10
69	Online analysis of gas-phase radical reactions using vacuum ultraviolet lamp photoionization and time-of-flight mass spectrometry. <i>Review of Scientific Instruments</i> , 2020, 91, 043201.	0.6	10
70	Chemical analysis of aged benzene secondary organic aerosol using aerosol laser time-of-flight mass spectrometer. <i>Journal of Atmospheric Chemistry</i> , 2014, 71, 213-224.	1.4	9
71	Kinetics and mechanisms of gas phase reactions of hexenols with ozone. <i>RSC Advances</i> , 2016, 6, 83573-83580.	1.7	9
72	Characterization of particulate products for aging of ethylbenzene secondary organic aerosol in the presence of ammonium sulfate seed aerosol. <i>Journal of Environmental Sciences</i> , 2016, 47, 219-229.	3.2	9

#	ARTICLE	IF	CITATIONS
73	Removing Water Vapor Interference in Peroxy Radical Chemical Amplification with a Large Diameter Nafion Dryer. <i>Analytical Chemistry</i> , 2018, 90, 3307-3312.	3.2	9
74	Threshold photoelectron spectroscopy of the methoxy radical. <i>Journal of Chemical Physics</i> , 2020, 153, 031101.	1.2	9
75	Influence of flocculation conditioning on environmental risk of heavy metals in dredged sediment. <i>Journal of Environmental Management</i> , 2021, 297, 113313.	3.8	9
76	Obtaining high-value nitrogen-containing carbon nanosheets with ultrahigh surface area from waste sludge for energy storage and wastewater treatment. <i>Science of the Total Environment</i> , 2022, 805, 150353.	3.9	9
77	Kinetic and mechanistic study on gas phase reactions of ozone with a series of cis-3-hexenyl esters. <i>RSC Advances</i> , 2018, 8, 4230-4238.	1.7	8
78	Enhanced mineralization of hypersaline wastewater with Fe ²⁺ /Cu ²⁺ catalyzed UV-Fenton process: process optimization and catalytic mechanism. <i>Water Science and Technology</i> , 2018, 78, 1219-1227.	1.2	8
79	Extracellular organic matter (EOM) distribution characteristic in algae electro-dewatering process. <i>Journal of Environmental Management</i> , 2020, 265, 110541.	3.8	8
80	Absolute Absorption Cross-Section of the Electronic Transition of the Ethyl Peroxy Radical and Rate Constant of Its Cross Reaction with HO ₂ . <i>Photonics</i> , 2021, 8, 296.	0.9	8
81	Pyrolysis of n-butane investigated using synchrotron threshold photoelectron photoion coincidence spectroscopy. <i>RSC Advances</i> , 2017, 7, 28746-28753.	1.7	7
82	Preparation of biological activated carbon (BAC) using aluminum salts conditioned sludge cake for the bio-refractory organic contaminants removal from anaerobically digested liquor. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2019, 561, 89-100.	2.3	7
83	Threshold photoelectron spectroscopy of the HO ₂ radical. <i>Journal of Chemical Physics</i> , 2020, 153, 124306.	1.2	7
84	Influence of Ammonium Sulfate Seed Particle on Optics and Compositions of Toluene Derived Organic Aerosol in Photochemistry. <i>Atmosphere</i> , 2020, 11, 961.	1.0	7
85	Preparation of ultrahigh-surface-area sludge biopolymers-based carbon using alkali treatment for organic matters recovery coupled to catalytic pyrolysis. <i>Journal of Environmental Sciences</i> , 2021, 106, 83-96.	3.2	7
86	Performance and mechanisms of dredged sludge dewaterability enhancement with slag-based polymeric titanium aluminum coagulant. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2021, 630, 127514.	2.3	7
87	Mass spectrometric study of aged benzene secondary organic aerosol in the presence of dry ammonium sulfate. <i>Journal of Atmospheric Chemistry</i> , 2016, 73, 329-344.	1.4	6
88	Transfer behavior of odorous pollutants in wastewater sludge system under typical chemical conditioning processes for dewaterability enhancement. <i>Scientific Reports</i> , 2017, 7, 3417.	1.6	6
89	Vacuum ultraviolet photochemistry of the conformers of the ethyl peroxy radical. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 22096-22102.	1.3	6
90	Rate Constant and Branching Ratio for the Reactions of the Ethyl Peroxy Radical with Itself and with the Ethoxy Radical. <i>ACS Earth and Space Chemistry</i> , 2022, 6, 181-188.	1.2	6

#	ARTICLE	IF	CITATIONS
91	Trace-Gas Detection with Off-Beam Quartz Enhanced Photoacoustic Spectroscopy. <i>International Journal of Thermophysics</i> , 2015, 36, 1066-1073.	1.0	5
92	VUV photoionization aerosol mass spectrometric study on the iodine oxide particles formed from O ₃ -initiated photooxidation of diiodomethane (CH ₂ I ₂). <i>RSC Advances</i> , 2017, 7, 56779-56787.	1.7	5
93	Computational study on the mechanism and kinetics for the reaction between HO ₂ and <i>n</i> -propyl peroxy radical. <i>RSC Advances</i> , 2019, 9, 40437-40444.	1.7	5
94	H ₂ S emission in sludge conditioning with different inorganic salt coagulants and its relationships with sludge properties. <i>RSC Advances</i> , 2016, 6, 83060-83068.	1.7	4
95	Theoretical Studies on the Reaction Mechanism and Kinetics of Ethylbenzene-OH Adduct with O ₂ and NO ₂ . <i>Atmosphere</i> , 2021, 12, 1118.	1.0	4
96	Amplitude-Modulated Cavity-Enhanced Absorption Spectroscopy with Phase-Sensitive Detection: A New Approach Applied to the Fast and Sensitive Detection of NO ₂ . <i>Analytical Chemistry</i> , 2022, , .	3.2	4
97	Mechanism and kinetics of the atmospheric reaction of 1,3,5-trimethylbenzene bicyclic peroxy radical with OH. <i>RSC Advances</i> , 2019, 9, 32594-32600.	1.7	3
98	Interaction of nano-quantum dots (CdSe@ZnS) and extracellular proteins in activated sludge revealed by bio-nano science. <i>Environmental Science: Nano</i> , 2020, 7, 2795-2808.	2.2	3
99	Vacuum ultraviolet photochemistry of sulfuric acid vapor: A combined experimental and theoretical study. <i>Physical Chemistry Chemical Physics</i> , 2022, , .	1.3	3
100	Data of chemical composition of the particles from OH-initiated oxidation of 1,3,5-trimethylbenzene. <i>Data in Brief</i> , 2022, 42, 108152.	0.5	2
101	Thermo-Optical and Particle Number Size Distribution Characteristics of Smoldering Smoke from Biomass Burning. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 5259.	1.3	1
102	Cl-Initiated oxidation of methacrolein under NO _x -free conditions studied by VUV photoionization mass spectrometry. <i>Physical Chemistry Chemical Physics</i> , 0, , .	1.3	0